

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY PROGRAMS
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Subject: Guidance Memo No. 01-2013 – Amendment #4
Checklists for Wastewater Laboratory Inspections

To: Regional Directors

From: Ellen Gilinsky, Ph.D., Director 

Date: October 5, 2005

Copies: Regional Deputy Directors, Regional Water Permit Managers, Regional Compliance and Enforcement Managers, Bill Purcell, Betsy Ziomek

Summary:

Several of the laboratory inspection checklists for analytical methods used for VPDES or VPA compliance monitoring have been updated and two new checklists have been created for *E. coli*.

Electronic Copy:

An electronic copy of this guidance in PDF format is available for staff internally on DEQNET, and for the general public on DEQ's website at:
<http://www.deq.virginia.gov/waterguidance/permits.html> .

Contact information:

Questions or comments regarding this topic can be directed to Betsy Ziomek at (804) 698-4181, e-mail address esziomek@deq.virginia.gov

Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Several of the laboratory inspection checklists for analytical methods used for VPDES or

VPA compliance monitoring have been updated and two new checklists have been created for *E. coli*. The checklists are located on DEQNet at http://deqnet/docs/default.asp?path=/main/water/Water_Inspections/Lab_Inspection, and DEQ's web page at <http://www.deq.virginia.gov/forms/checklist.html>. The following list indicates what changes were made:

- 1664** rev 09-05 - Oil and Grease Hexane Extractable Material [#11-changed weight Class that must be used]
- Balance** rev 09-05 – Analytical Balance [Added Class 2 weights to yearly recertification. See 1664 checklist item #11 for when Class 2 may be used.]
- BOD** rev 09-05 – Biochemical Oxygen Demand [#21 – Added note about determining GGA when nitrification inhibitor is added to samples (CBOD).]
- COD** rev 06-05 - Chemical Oxygen Demand – Colorimetric [#15- Recovery of “±5%” was changed to “≤ 5%” for standards verifying an existing curve.]
- E. coli* IDEXX** rev 09-05 - Escherichia coli Colilert-18 MPN [New checklist]
- Fecal MF** rev 07-05 – Fecal Coliform Membrane Filter [#38 – Changed how combined colony count >200 should be reported. #45 – Added “Are plates sterilized prior to disposal?”]
- Fecal A-1** rev 09-05 – Fecal Coliform A-1 [#39 – Added “Are tubes sterilized prior to disposal?”]
- Fecal MPN** rev 09-05 – Fecal Coliform MPN [#42 – Added “Are tubes sterilized prior to disposal?”]
- Holding Times** rev 07-05 – Sample Analysis Holding Time/Container Preservation [Added *E.coli* and Enterococci and changed preservation temperature to 10°C.]
- m-ColiBlue24** rev 07-05 – *E. coli* Membrane Filter [New checklist]
- Metals** rev 06-05 – [#45 – Changed recovery of QCS to 90-110% when citing Standard Methods]
- NO2-NO3** rev 09-05 – Nitrite-Nitrate Nitrogen Cadmium Reduction [#20 - Added NaOH to list of acids/bases that may be used to adjust pH.]
- Templog** rev 06-05 – Temperature Log and Thermometer Calibration [Added question about certification of NIST / NIST Traceable reference thermometers.]
- TSS** rev 06-05 – Total Suspended Solids [Added #24 – “Were duplicates analyzed on 5% of samples? Did the results of the duplicates agree within 5% of their average?”]